



The Atom Probe
December 2006
www.imago.com

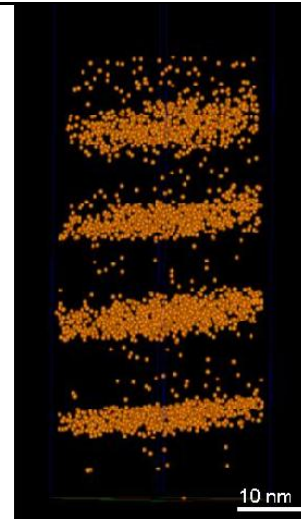
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<http://www.imago.com/imago/html/calendar2007.jsp>

Imago Looks Back at 2006

Seasons Greetings! As the new year approaches, we look back on an exciting and eventful 2006 in which we passed several key milestones, including:

- Release of the Laser Pulse Module with the LEAP 3000X, including deliveries, installations, and upgrades for existing LEAP 3000 customers
- Merging the Oxford nanoScience development team and their 3DAP technology with Imago
- Winning an R&D100 Award (for the second time in 3 years!) for the Laser Pulse Module
- Our strong presence at the Microscopy and Microanalysis 2006 (Chicago) conference which featured 34 LEAP presentations (oral and poster)
- Widespread acceptance within the materials research community that LEAP tomography has arrived as an important analytical tool for high spatial resolution and compositional analysis.

And we're just scratching the surface of LEAP's potential. Stay tuned for even more major milestones from Imago in 2007. We wish you all peace, prosperity, and happiness in the new year.

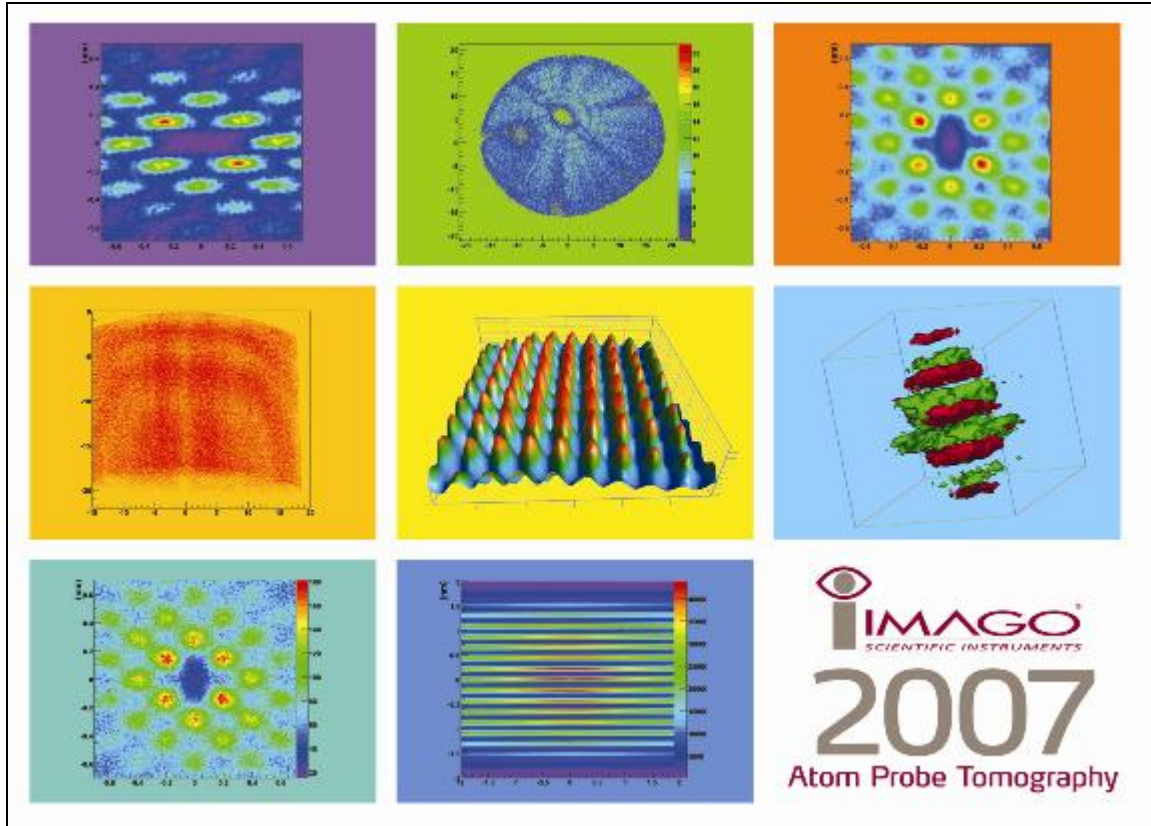


LEAP reconstruction showing indium quantum wells in a GaN specimen. Optoelectronic devices using indium gallium nitride quantum wells have very high efficiency at producing bright light over a wide range of wavelengths.

Image compliments of Mark Galtrey, Cambridge University. For more details, see **Galtrey, MJ et al, Applied Physics Letters (in press), "Three dimensional atom probe studies of an $In_xGa_{1-x}N/GaN$ multiple quantum well structure: assessment of possible indium clustering."**

Imago 2007 Calendar Available

Sign up now to receive a free copy of Imago's 2007 calendar, featuring atom probe images collected by our customers and collaborators. These cutting-edge graphic images are both beautiful and fascinating as they reveal structural and compositional information critical to materials researchers with atomic resolution and very high sensitivity. This year's cover shows multiple images calculated with Imago's LatticeView algorithms showing crystalline lattice structures.



To receive your free Imago 2007 calendar, just send us your name and mailing address by clicking here <http://www.imago.com/imago/html/calendar2007.jsp>. You can also sign up by sending an email with your name and address to calendar@imago.com. Images from the calendar will also be displayed on our website throughout 2007.

Visit our updated website at www.imago.com

If you have not visited our website lately, please stop by to check out a host of updates and new features. In addition to our ongoing updates to the Applications page as LEAP is used in more and more research fields, we have recently updated our Products and Technology pages substantially. Click below to link directly to some of the new items, including:

Cu precipitation-hardened model steel

<http://www.imago.com/imago/techNote/viewAction.do?tnid=18>

Heat-resistant ferritic steel

<http://www.imago.com/imago/techNote/viewAction.do?tnid=20>

Silicidation of NiPd/Si

<http://www.imago.com/imago/techNote/viewAction.do?tnid=19>

Indium Gallium Arsenide quantum wells

<http://www.imago.com/imago/techNote/viewAction.do?tnid=22>

Lateral Dopant Distribution in a Transistor Structure

<http://www.imago.com/imago/techNote/viewAction.do?tnid=21>

Ordered Gamma Prime in Ni-Base Superalloy

<http://www.imago.com/imago/techNote/viewAction.do?tnid=23>

Overview Imago products

<http://www.imago.com/imago/html/products/products.jsp>

Details on the LEAP 3000 series

<http://www.imago.com/imago/html/products/LEAP3000.jsp>

Details on the 3DAP series

<http://www.imago.com/imago/html/products/LEAP3DAP.jsp>

Information on Microtip specimen preparation arrays

<http://www.imago.com/imago/html/products/microtips.jsp>

Information on laser pulsing

<http://www.imago.com/imago/html/products/laserpulsing.jsp>

Information on Imago IVAS Analysis Software

<http://www.imago.com/imago/html/products/ivas.jsp>

User Stories

http://www.imago.com/imago/html/aboutUs/user_stories.jsp

Up-to-date information about Imago's technical presentations, seminars, and exhibition displays

<http://www.imago.com/imago/newsevent/eventHome.do?method=eventContaint>

Upcoming Imago Seminars, Exhibits and Presentations

nano tech 2007

East Exhibition Halls 4-6 & Conference Tower, Tokyo Big Sight,
February 21-23, 2007

Imago will have daily presentations in the Nanotech Partners stage within the Mitsubishi Corporation booth in the East Exhibition Hall #5.

<http://www.ics-inc.co.jp/nanotech/en/index.html>

2007 NIST Metrology Conference

NIST International Conference on Frontiers of Characterization and Metrology for Nanoelectronics, Gaithersburg, MD, March 27-29, 2007

Dr. Tom Kelly (Imago) and Dr. Paul Ronsheim (IBM) will present a talk entitled "LEAP Tomography and the Rapidly Expanding World of Microelectronic Applications."

<http://www.eeel.nist.gov/812/conference/>

Recent Publications

Reply to this email to order free reprints of any or all of the below articles

Ultramicroscopy (In press, July 2006)

Keith Thompson, et al describe *In Situ Site-specific Specimen Preparation for Atom Probe Tomography* for semiconductor samples

Microscopy Today (July 2006)

Tom Kelly, et al contributed *Atom Probe Tomography Defines Mainstream Microscopy at the Atomic Scale*. This is a good overview article with examples of key applications of APT.

West Coast Junction Technology Group (July 2006)

Hosted a day-long seminar at Semicon West 2006, including Keith Thompson's presentation *3-D Analysis of Patterned, Ultra-Shallow Junctions*.

Solid State Technology (June 2006)

Keith Thompson, et al. article on semiconductor applications *Three-dimensional*

*Analysis of SiGe Structures with a Laser Local Electrode Atom Probe.
Microscopy and Analysis (May 2006)*

Featured article (including front cover) by David Larson and Tom Kelly,
Nanoscale Analysis of Materials using a Local-Electrode Atom Probe.

Thin Solid Films (May 2006)

David Larson's article, *Atom Probe Characterization of Nanomagnetic Materials*, describes the use of the LEAP to analyze magnetic-storage materials (read/write heads and media).

For more information about Imago, visit www.imago.com or call 608-274-6880.

Do you know someone interested in atom probe technology? Forward this email and introduce someone to our atom probe newsletter.

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Patents

The LEAP Microscope, as well as its components, software, and operational procedures, are covered by U.S. Patents 5,061,850; 5,440,124; 6,576,900; 6,580,069; 6,661,013; 6,700,121; 6,762,415; and 7,019,307, as well as GB0231247 B1 and WO9914793. Further patents may be pending in the United States and elsewhere.

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